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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,589	01/24/2003	Elmgaard Birger Sorensen	6474-02WOUS	4089
28765	7590	03/03/2006	EXAMINER	
WINSTON & STRAWN LLP 1700 K STREET, N.W. WASHINGTON, DC 20006			HECKENBERG JR, DONALD H	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/743,589

Applicant(s)

SORENSEN, ELMGAARD BIRGER

Examiner

Donald Heckenberg

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-20 and 28-30 is/are allowed.
- 6) ☒ Claim(s) 21-26 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1722

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 21-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson (U.S. Pat. No. 4,921,650; previously of record) in view of Laursen et al. (U.S. Pat. No. 4,640,810; previously of record).

Eriksson discloses an apparatus for making fiber webs. The apparatus comprises a device (21) for defibrating fiber material. A first transport fan (25) is provided for

Art Unit: 1722

transporting fibers formed in the defibrator via a series of ducts (22 and 24) to a separator screen (23). A forming head (1) is provided for forming a web out of the fiber material from the screen on an endless forming wire (27) which runs horizontally during operation (see Fig. 2).

Eriksson further discloses reject entangled fibers (or "nits") are separated out at the forming head and sent via a second air duct (28 and 29) to the separator (cl. 2, ll. 13-29; cl. 2, l. 58 - cl. 3, l. 2). The separator screen separates rejected entangled fibers and well-opened fibers (cl. 2, ll. 60-64). Eriksson also discloses a duct (26) for removing the nits fibers from the separator (equivalent to the "fourth air duct" defined in the claims of the instant application).

As noted above, Eriksson discloses a series of ducts (22 and 24) for transporting material from the defibrator to the forming head. A first air duct (22), is a separate and distinct component from the second air duct (28).

Eriksson does not disclose a second transport fan to be positioned in the second air duct (28 and 29) or a transport fan to be positioned in the "fourth" duct (26). However, transport fans are well known in the art to provide propulsion of fibers through duct as evidenced by Eriksson (cl. 2, ll. 61-63) as well as Laursen (cl. 9, ll. 37-41). Thus, it would have been obvious

Art Unit: 1722

to one of ordinary skill in the art at the time of Applicant's invention to have modified the plant disclosed by Eriksson as such to have a second fan positioned in the second air duct and a fourth fan positioned in the fourth air duct to drive the fibers therein because fans are well known in the art to drive fibers in air ducts as suggested by Eriksson and Laursen.

Eriksson discloses the well-opened fibers separated at the screen (23) to be returned to the forming head via the first conduit (24). Therefore, Eriksson does not disclose a third transport fan for returning the well-opened fibers to the forming head via a third air duct.

Laursen discloses a system for producing an air laid web wherein fibers that are at first sent to the forming head with nits, and then recycled back to become well opened. These fibers are transported back to the forming head by a "third fan" (36) through a "third conduit" (as opposed to the first fan 38 and corresponding conduit, and second fan 168 and corresponding conduit 166).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the plant disclosed by Eriksson as such to have the used a third fan and third conduit for sending the well-opened fibers to the forming head after separating because this is an alternative

Art Unit: 1722

configuration also known in the art to transport the fibers through the structure as suggested by Laursen.

4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson modified by Laursen as applied to claims 21-24 and 26 above, and further in view of Bridge et al. (U.S. Pat. No. 4,004,324).

Eriksson and Laursen disclose and suggest the structure for producing a nonwoven web as described above. While Eriksson discloses a device for producing defibrated fiber material, the reference does not specify the device to be a hammer mill. The use of hammer mills, however, is well known in the art. For example, Bridge discloses an apparatus for producing fibrous webs in which an hammer mill is used as a defibrating device (cl. 3, ll. 34-50; cl. 6, ll. 39-43). Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the structure disclosed and suggested by Eriksson and Laursen so as to include a hammer mill because such a structure is known in the art as a suitable defribating device as suggested by Bridge.

5. Applicant's arguments filed 07 April 2005 have been fully considered but they are not persuasive.

Art Unit: 1722

Applicant notes that Eriksson discloses a conduit common to both conduits 22 and 29. Applicant therefore argues that Eriksson does not disclose first and second air ducts that are separate and distinct components. Applicant therefore asserts that Eriksson does not teach or suggest claim 21.

Applicant's argument seems imply that the first and second air ducts cannot be combined. This argument is not commensurate with the scope of claim 21. Claim 21 merely requires "the second air duct [to be] separate and distinct component from the first air duct[.]" As noted above, Eriksson does disclose a first air duct (22) and a second air duct (28) which is a separate and distinct component from the first air duct. Nothing within the language of claim 21 further precludes the first and second ducts from being combined within the structure. Note, claim 21 is framed in open-ended "comprising" terminology. Therefore, the claim may contain additional elements from those described, such as a combination duct as disclosed by Eriksson.

6. Claims 11-20 and 28-30 are allowed.

7. Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent

Art Unit: 1722

form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest a plant for producing a nonwoven web of fibers or fibrous material as defined in claims 27-30 of the instant application. The closest prior art disclosed by Eriksson is described above. Eriksson fails to teach or suggest a cyclone connected to the second air duct for separating nits and well-opened fibers as recited in claims 27 and 28. While the prior art, such as Heritage discussed in the previous Office Action, discloses cyclones for separating gas from fibers within web forming apparatus, there is no teaching or suggestion for the placement of cyclone a duct within the apparatus containing extracted nits, with the cyclone being as such to separate nits from well-opened fibers as recited in claims 27 and 28.

With respect to claims 11-20, see the reasons for indicating allowable subject matter in the previous Office Action.

Art Unit: 1722

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (571) 272-1131. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith, can be reached at (571) 272-1166. The official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<<http://pair-direct.uspto.gov>>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).


Donald Heckenberg
Primary Examiner
A.U. 1722

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